Workshop Issues and Topics

PURITY

- Carbon and non-carbon content
- Types of carbon (e.g., single-walled and multi-walled nanotubes, fullerenes, graphite, and amorphous carbon
- Morphology of SWCNTs and associated impurities
- Derivatized nanotubes, functionalization, and defective tubes
- Metal aggregates, metal compounds and carbon-covered particles
- Penalties involved in improving purity
- Needs for reference standards

DISPERSION

- Stability and solubility (macro-dispersion)
- Extent of unbundling of large ropes into smaller ropes and individual SWCNTs (nano-dispersion)
- Novel methods to monitor macro- and nano-dispersion in solids, thin films, gels, liquids and gases
- Methods to maintain dispersion during processing
- Nanotube separation processes; separation by geometry and electronic property; methods and characterization
- Needs for reference standards

ISOLATED TUBES

- Length, diameter, and chirality
- Functional properties
- Modification of properties via coatings and/or functionalization
- Attachment and contact issues
- Consistency and repeatability of measurements
- Needs for reference standards